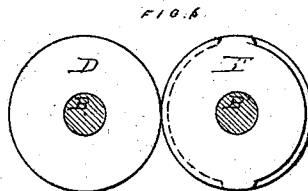
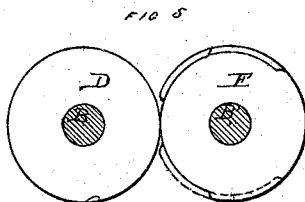
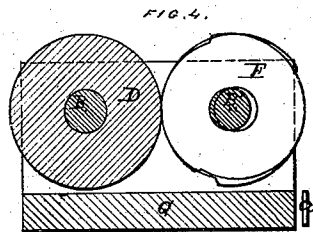
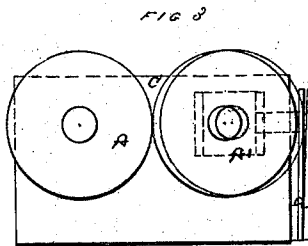
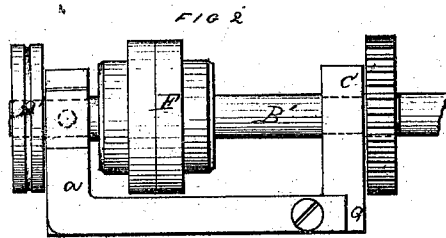
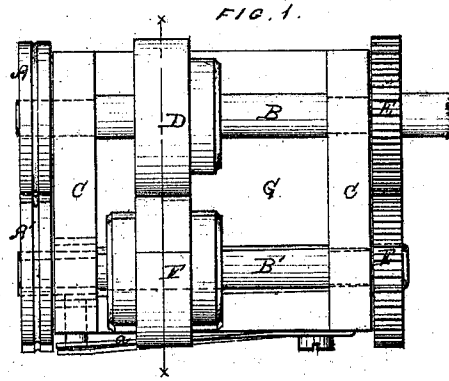


W. A. Foskett,

Notary Wire Feed.

No. 87,555.

Patented Mar. 9, 1869.



Witnesses

Geo. E. Hendon
Wm. A. Floyd

Wm. A. Foskett
by his atty *Inventor.*
Sam'l. D. Prosser

United States Patent Office.

WILLIAM A. FOSKETT, OF MERIDEN, CONNECTICUT.

Letters Patent No. 87,555, dated March 9, 1869.

IMPROVED ROTARY WIRE-FEED.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM A. FOSKETT, of Meriden, county of New Haven, and State of Connecticut, have invented a new and useful Improvement in a Rotary Wire-Feed; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Said drawings constitute part of this specification, and represent, in—

Figure 1, a plan or top view of my improvement; in

Figure 2, a side view of the same; in

Figure 3, an end view; in

Figure 4, a horizontal section, taken through line $x x$; and in

Figures 5 and 6, detached views, showing the operation of the cam upon the roll.

Similar letters of reference, when they occur in the separate views, indicate like parts.

My invention relates to an improvement in a device for the purpose of making a rotary wire-feed, intermittent in its action; and consists in placing upon the shaft of one of the feed-rolls, a variable cam, this said cam to operate against a smooth roll upon the other shaft, and separate the two feed-rolls, thus causing them to cease their action upon the wire, without impeding their rotary motion. The object of this is to adapt its use to all cases where an intermittent feed is required, and to take the place of the common back-and-forward feed now used.

It is well known that a rotary feed can be got into a smaller compass, and can be driven to better advantage than the common kind, by doing away with the levers and fulcrum, slides and connecting-rods, which are in many cases found so inconvenient in applying a feed; but the great trouble has been that in a rotary feed, the wire is fed continuously unless the motion of the rolls is stopped. All this, however, is obviated by using my improvement.

To enable others skilled in the art to make and use my improvement, I will proceed to describe the construction and operation of the same.

A and A' are two feed-rolls, similar to those used on any rotary feed, placed upon shafts B and B', which shafts are held in proper bearings C C, formed upon a bed, G.

The shaft B is the driving-shaft, and is held in rigid bearings.

Upon this shaft, between the bearings C C, a smooth roll or barrel, D, is placed.

The shaft B' is driven from the shaft B, by means of gears E and E'. The said shaft B' is held at one end in a stationary bearing, while at the other end, upon which the feed-roll is placed, a lateral-sliding bearing is provided. The object of this sliding bearing is to allow for the movement of the shaft B'.

As the feed-rolls are opened and closed, the said slide is acted upon by the spring a , for the purpose

of keeping the said slide in its place when the cam F is not in operation upon the shaft B'.

Between the bearings C C, and corresponding in position with the roll, or barrel D, against which it operates, a double cam, F, is placed. The form of this cam is that shown in black, fig. 4, which is two concentric segments of circles, with a small offset, the outer circle, or rise of the cam, to extend a little over one-half its circumference.

This said cam F is made in two parts, or it is actually two cams of the same form, placed together upon the shaft. These two parts of the said cam are made adjustable, and may be moved around the shaft B', and set at any required point, thus varying the position of the said cam upon the shaft, or the two parts with relation to each other.

The relative position of the two parts of this cam may be varied from the position shown in black, fig. 4, (in which they exactly correspond,) to any position between this and the position shown in fig. 6, where the said two parts are in direct opposition to each other.

The object of the said cam F is to vary the length of the wire which is fed at one revolution of the rolls. This is done by varying the position of the two parts of the said cam, with reference to each other, as before described, by this means enlarging or diminishing the outer circle of the said cam. This circle may be enlarged from the size shown in black, fig. 4, which is the size of the circle when the two parts of the cam are in the same relative position to any size, as shown in fig. 5, between that and the whole circumference of the said cam, or when the two parts stand directly opposite each other, as shown in fig. 6. When this is done, the feed-rolls A and A' are kept apart their entire revolution. The length of the feed is by this means diminished in the same proportion as the outer circle of the cam is enlarged.

This completes the construction of my improvement.

The operation is as follows:

When the inner circle of the cam F is against the smooth roll, or barrel D, the feed-rolls are in operation upon the wire, and they continue to feed the said wire until, by the revolution of the shaft, the rise of the cam brings the outer circle of the same in contact with the said roll, or barrel D. The cam F and the feed-roll A' are then immediately thrown back to the position shown in red, in figs. 1, 3, and 4, thus preventing the said feed-rolls from grasping the wire, which remains without being fed until the said outer circle of the said cam operates upon the roll, or barrel D, when, by means of the spring a , the rolls are again thrown together, and the wire is carried forward.

In order to vary the length of the feed, the two parts of the cam F are placed in the requisite position to allow the feed-rolls A and A' to be kept together for such a part of the revolution as is necessary to carry the wire the given distance, and the said parts of the

cam, after being thus set, may be moved around the shaft, for the purpose of starting the feed at any given point upon the wire, and in this way adjusting it to the revolution of the machine.

I do not confine myself to the use of two feed-rolls, in connection with my improvement, as I am aware that it may be adapted to a rotary feed where but one feed-roll is used, but the method herein described is the most convenient, and will be the one generally used.

Having thus fully described my invention,

What I claim as new and useful, and desire to secure by Letters Patent, is—

The variable cam F, operating upon the smooth roll, or barrel D, or its equivalent, when used upon a rotary feed, in the manner and for the purpose substantially as herein set forth.

WM. A. FOSKETT.

Witnesses:

RUFUS H. SANFORD,
FRANK PRESCOTT.